

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: John M. Thompson et al.  
Serial No. 10/651,054  
Filed: 08/28/2003  
For: **ENGINE MISFIRE DETECTION SYSTEM**

Examiner: Hoang, Johnny H.  
Art Unit: 3747

**DECLARATION UNDER RULE 37 C.F.R. § 1.132**

1. My name is John Thompson, and I am one of the inventors for the application identified above.
2. I have worked in the automotive industry since 1979 and have been involved in engine repairs and automotive emissions for most of that time. Since 2002 I have been a lecturer at various automotive emission training seminars.
3. I am familiar with 40 C.F.R. § 86.099-17 and its requirement that on-board diagnostic systems monitor and report engine misfires in automotive engines.
4. Despite the requirements set forth in 40 C.F.R. § 86.099-17, in my experience, no commercially deployed diagnostic system is available which can consistently and accurately identify which cylinder of an engine is misfiring under a variety of operating conditions. The lack of a diagnostic system that can readily identify which cylinder of an engine is misfiring is due in part to the difficulty in accurately determining which cylinder in an engine is misfiring.
5. Despite the difficulties associated in accurately determining which cylinder in an engine is misfiring, I have developed, with my co-inventor, a system which allows for accurate determination of which cylinder in an engine is misfiring or has other combustion inefficiencies.
6. Since the filing of the patent application identified above, I have begun marketing a product exemplifying the inventive concepts of my invention, and in particular, marketing a product that performs the functions recited in currently pending claims 1-17 and 21-25 under the name "ACE

Misfire Detective". An early version of this product was called an "Engine Misfire Detection System".

7. Several experts in the field of automotive emissions and engine repair have expressed doubt about my invention's ability to work. However, when provided the opportunity to witness the results first hand, these experts revised their opinion. In particular, Jerry Truglia and Tom Roberts, both experts in the automotive emissions field, have expressed their opinions on the viability of my invention. I have attached the declarations of these two individuals as Exhibits A and B.

8. I hereby declare that all declarations made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

  
John M. Thompson

7/15/05  
Date